	Application No.	Applicant(s)
Notice of Allowability	09/436,506	BISH ET AL.
	Examiner	Art Unit	
	Mohammad Ali	2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _July 07, 2004_.

2. ☒ The allowed claim(s) is/are _1-4, 6-13, 15-22, and 24-27 (Renumbered as 1-24)_.

3. ☒ The drawings filed on _18 July 2002_ are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _9-9-04_ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

1.   This communication is in response to the amendment filed on July 07, 2004.

Claims 5, 14, and 23 have been canceled and claims 1-4, 6-13, 15-22, and 24-27

remains in the application.

After a search and a thorough examination of the present application and in light of

the prior art made of records, claims 1-4, 6-13, 15-22, and 24-27 are allowed.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Attorney David Victor (Reg. No. 39,867) on September 1, 2004.

In July 07, 2004 (PTO Official Record August 26, 2004) claims amendment

paper, Please Amend claims as follows:

Please amend the claim 1 as follows:

A method for accessing a plurality of data sets from one of ~~two~~ <u>a first, second,</u>
<u>third and fourth</u> storage devices~~, each~~ including a copy of the data set, comprising:

maintaining a flag for each <u>of the first and second</u> storage ~~device~~ <u>devices</u>
indicating whether a previous access attempt of the data set from the <u>first and second</u>
storage ~~device~~ <u>devices</u> failed;

maintaining a data level for each of the plurality of data sets in each <u>of the first</u>
<u>and second</u> storage ~~device~~ <u>devices</u> indicating a number of times the data set has been

updated, wherein there is a separate data level for each copy of one data set in ~~different~~ <u>the first and second</u> storage devices and wherein the data levels for ~~different~~ <u>the first and second</u> storage devices having copies of one data set are capable of being equal;

receiving a request to one data set;

<u>accessing the data set from one of a third and fourth storage devices if the data set is in one of the third and fourth storage devices;</u>

selecting the <u>first or second</u> storage device having a higher data level <u>for the requested data set</u> if the data levels are not equal <u>and if the data set is not in one of the third and fourth storage devices;</u>

selecting the <u>first or second</u> storage device having the flag indicating that no previous access attempt failed if the flag for the other storage device indicates that one previous access attempt of the data set from the storage device failed and if the data levels are equal <u>and if the data set is not in one of the third and fourth storage devices;</u>

accessing the data set from the selected <u>first or second</u> storage device<u>;</u>

<u>copying the data set from the first storage device to the third storage device when accessing the data set from the first storage device; and</u>

<u>copying the data set from the second storage device to the fourth storage device when accessing the data set from the first storage device.</u>

Please cancel the claim 5.

In claim 6, line 1, after method of claim, please delete "5" and insert --1--.

In claim 8, line 1, after method of claim, please delete "5" and insert --1--.

Please amend the claim 10 as follows:

A system for accessing a data set from one of <u>a first, second, third, and fourth</u> ~~two~~ storage devices<u>,</u> ~~each~~ including a copy of the data set, comprising:

means for maintaining a flag for each of the first and second storage device devices indicating whether a previous access attempt of the data set from the first and second storage device devices failed;

means for maintaining a data level for each of the plurality of data sets in each of the first and second storage device devices indicating a number of times the data set has been updated, wherein there is a separate data level for each copy of one data set in different the first and second storage devices and wherein the data levels for different the first and second storage devices having copies of one data set are capable of being equal;

means for receiving a request to one data set;

means for accessing the data set from one of a third and fourth storage devices if the data set is in one of the third and fourth storage devices;

means for selecting the first or second storage device having a higher data level if the data levels are not equal and if the data set is not in one of the third and fourth storage devices;

means for selecting the first or second storage device having the flag indicating that no previous access attempt failed if the flag for the other storage device indicates that one previous access attempt of the data set from the storage device failed and if the data levels are equal and if the data set is not in one of the third and fourth storage devices; and

means for accessing the data set from the selected first or second storage device;

means for copying the data set from the first storage device to the third storage device when accessing the data set from the first storage device; and

means for copying the data set from the second storage device to the fourth storage device when accessing the data set from the first storage device.

Please cancel the claim 14.

In claim 15, line 1 after the system of claim, please delete "14" and insert --10--.

In claim 17, line 1 after the system of claim, please delete "14" and insert --10--.

Please amend the claim 19 as follows:

An article of manufacture for use in programming [[a]] at least one processing unit to ~~accessing~~ access a data set from one of a first, second, third, and fourth ~~two~~ storage devices,~~each~~ including a copy of the data set, the article of manufacture comprising computer readable storage media including at least one computer program embedded therein that causes the at least one processing unit to perform:

maintaining a flag for each of the first and second storage ~~device~~ devices indicating whether a previous access attempt of the data set from the first and second storage ~~device~~ devices failed;

maintaining a data level for each of the plurality of data sets in each of the first and second storage ~~device~~ devices indicating a number of times the data set has been updated, wherein there is a separate data level for each copy of one data set in ~~different~~ the first and second storage devices and wherein the data levels for ~~different~~ the first and second storage devices having copies of one data set are capable of being equal;

receiving a request to one data set;

accessing the data set from one of a third and fourth storage devices if the data set is in one of the third and fourth storage devices;

selecting the first or second storage device having a higher data level if the data levels are not equal and if the data set is not in one of the third and fourth storage devices;

selecting the first or second storage device having the flag indicating that no previous access attempt failed if the flag for the other storage device indicates that one previous access attempt of the data set from the storage device failed and if the data levels are equal and if the data set is not in one of the third and fourth storage devices; ~~and~~

accessing the data set from the selected first or second storage device.

copying the data set from the first storage device to the third storage device when accessing the data set from the first storage device; and

copying the data set from the second storage device to the fourth storage device when accessing the data set from the first storage device.

Please cancel claim 23.

In claim 24, line 1, after manufacturer of claim, please delete "23" and insert --19--.

In claim 26, line 1, after manufacturer of claim, please delete "23" and insert --19--.

Reason for Allowance

3.   The prior art made of records does not teach or fairly suggest the combination of elements as indicated by the Examiner's amendment, as recited in independent claims 1, 10, and 19. More specifically, the prior art of records fails to fairly teach the steps of

"accessing the data set from one of a third and fourth storage devices if the data set is in one of the third and fourth storage devices;

selecting the first or second storage device having a higher data level if the data levels are not equal and if the data set is not in one of the third and fourth storage devices;

selecting the first or second storage device having the flag indicating that no previous access attempt failed if the flag for the other storage device indicates that one previous access attempt of the data set from the storage device failed and if the data levels are equal and if the data set is not in one of the third and fourth storage devices;

accessing the data set from the selected first or second storage device.

copying the data set from the first storage device to the third storage device when accessing the data set from the first storage device; and

copying the data set from the second storage device to the fourth storage device when accessing the data set from the first storage device".

The dependent claims, being definite, further limiting, and fully enabled by the specification and are also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (703) 605-4356. The examiner can normally be reached on Monday to Thursday from 7:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for any communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

MA

September 09, 2004

Mohammad Ali

Patent Examiner

Art Unit: 2177